

Notice of Allowability

Application No.

10/667,228

Examiner

Henry S. Hu

Applicant(s)

BURRIS ET AL.

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9-17-2003.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with **Joseph J. Mallon (619 235-8550) on May 6, 2004** to amend the parent Claim 1:

Claim 1 at lines 6-8 please replace the phrase of "water, between about 10% and about 50%, by weight, clay, about 10% and about 50%, by weight, aromatic petroleum hydrocarbon, and about 10% and about 50%, by weight, crumb rubber" with a phrase of "water, between about 10% and about 50% by weight clay, between about 10% and about 50% by weight aromatic petroleum hydrocarbon, and between about 10% and about 50% by weight crumb rubber".

DETAILED ACTION

2. It is noted that this application 10/667,228 filed on September 17, 2003 is a **DIV of 09/989,763 filed on 11/19/2001, which now is US Patent No. 6,653,389**. Claims 1-18 are pending now. An action follows.

Allowable Subject Matter

3. Claims 1-18 are allowed.

4. The following is an examiner's statement of reasons for allowance: The above claims 1-18 are allowed over the closest references:

5. *The limitation of amended parent Claim 1 of present invention relates to a method of preparing a fluid or semifluid additive composition comprising:*

(a) mixing water and an ingredient selected from the group consisting of clay and rheological agent to form a slurry composition, and

(b) mixing crumb rubber and an aromatic petroleum hydrocarbon having above about 50% aromatics, by weight, with said slurry composition to form a fluid or semifluid additive composition that comprises water, between about 10% and about 50% by weight clay, between about 10% and about 50% by weight aromatic petroleum hydrocarbon, and between about 10% and about 50% by weight crumb rubber.

The other parent Claims 8 relates to the same limitation of Claim 1 but having surface-active clay instead of clay. See other limitations of dependent Claims 2-7 and 9-18.

6. It is noted that this application 10/667,228 filed on September 17, 2003 is a **DIV of 09/989,763 filed on 11/19/2001, which now is US Patent No. 6,653,389.** Regarding the

Art Unit: 1713

limitation of amended parent **Claim 1** which has been only corrected cosmetically to use the same format of Claim 8 by examiner's amendment, it is relating to a method of preparing a fluid or semifluid additive composition comprising (a) 10-50 wt% of crumb rubber, (b) 10-50 wt% of petroleum hydrocarbon having above 50 wt% of aromatics, (c) 10-50 wt% of **clay**, and (d) water. Same rational as discussed in the notice of allowability for the parent case can be applied.

The primary reference **Burris et al. (US 5,811,477)** only disclose that an asphalt emulsion composition prepared from a method comprises the mixing of an aqueous asphalt emulsion with **water**, latex rubber, a solid from reclaimed rubber particles, a surface active clay, and 1-35 wt% of a liquid petroleum hydrocarbon. With respect to the use of petroleum hydrocarbon, Burris further discloses the petroleum hydrocarbon is a liquid with a boiling point above 200 °F and may include naphtha (an aromatic hydrocarbon). However, **the reference is silence specifically about using a petroleum hydrocarbon having the amount of aromatics above 50 % by weight.** The Applicants have provided evidence to show naphtha is not synonymous with naphthalene, which is a specific aromatic hydrocarbon. Accordingly, Burris may not use any aromatics inside the liquid petroleum hydrocarbon.

7. The secondary reference **Nielsen et al. (US 4,068,023)** disclose that a heavy, high-boiling (700-1100 °F), **highly aromatic (50-100 %)**, high-flash point mineral oil solvent obtained from petroleum, coal tar, tar sand oils and shale oils can be included to the rubbery asphalt paving composition, the advantage is **such an oil can facilitate the dissolving or dispersing of reclaimed rubber particles into molten state** with asphalt at elevated temperature above 300

°C. However, the **processing temperature used by Burris (477) is at ambient temperature, while Nielson is used in hot-mix conditions and may cause undesirable volatilization. Accordingly, there is no link for Nielson to teach Burris (477).** Therefore, both Burris (477) and Nielson, in combination or alone, fail to teach the present invention with the requirement to use a **petroleum hydrocarbon having above 50 wt% aromatics.**

8. In a close examination by checking the references in IDS sent by Applicants as well as by further searching on EAST as following: **US Patent No. 6,156,828 to Wickett** only discloses a rubber-base asphalt emulsion method to prepare a gel-like emulsion containing natural rubber, crumb rubber (abstract, line 1-3), clay 9column 2, line 56), water and **an aliphatic solvent** (column 2, line 45-52). The preferable size for crumb rubber is between 25 and 50 mesh (column 2, line 51-52). **No claimed solvent with aromatics is disclosed.**

USPG-PUB 2001-0004649 to Osborn only discloses a method for rubber and plastic bonding by use of a dry liquid concentrate mixture comprising crumb rubber, tall oil or tall oil derivatives or other fatty acids (abstract, line 1-5). **No clay, no surface-active clay, and no claimed solvent with aromatics are disclosed.**

9. **US Patent No. 6,194,519 to Blalock** only discloses a polymer-base composition useful for extrusion method to prepare products as roof shingles. Although crumb rubber and clay are included (column 5, line 12-28), **only aromatic compounds are added instead of using the claimed petroleum solvent with aromatics.**

US Patent No. 5,904,760 to Hayner only discloses an asphalt-base composition useful for low temperature properties (title; abstract, line 1-3). Although crumb rubber and clay (or organoclay) are included (column 5, line 25-62; column 6, line 60), **only aromatic oils are added instead of using the claimed petroleum solvent with aromatics** (column 3, line 16-27). Additionally, **no water is included as solvent** (see Tables A and B on column 10, line 10-67).

US Patent No. 4,268,577 to Fahey discloses the preparation of an elastomeric coating composition for glass fibers, wherein the composition comprising an elastomeric latex, an external plasticizer such as an **aromatic naphthenic and paraffinic oils** (column 4, line 61-62), an antioxidant, and an elastomeric curing agent (abstract, line 1-6). A filler such as clay may be also included (column 5, line 13). However, **Fahey fails to disclose specifically using petroleum hydrocarbon having above 50 wt% aromatics. Fahey also fails to disclose including a crumb rubber.**

10. With respect to the other parent claims, **Claim 8** only relates to the same limitation of Claim 1 but having **surface-active clay** instead of clay. Therefore, the limitations of the two parent Claims 1 and 8 are novel. In summary, the above-mentioned **seven** references, in combination or alone, fail to teach or fairly suggest using use water with a **petroleum hydrocarbon having above 50 wt% aromatics as claimed** by the present invention.

Additionally, the present invention has shown in examples along with some comparative examples for unexpected results in obtaining a fluid or semifluid additive composition comprising crumb rubber, **petroleum hydrocarbon specifically having above 50 wt% of aromatics**, clay or surface-active clay, and water (see paragraphs 9-15). Therefore, all the above-mentioned references, in combination or alone, does not teach or fairly suggest the limitations of present invention.

11. The key issue regarding the requirement to use water with a **petroleum hydrocarbon having above 50 wt% aromatics** cannot be overcome by any or the combination of the above references, therefore, the present invention is novel.

12. As of the date of this office action, the examiner has not located or identified any reference that can be used singularly or in combination with another reference including the above references to render the present invention anticipated or obvious to one of the ordinary skill in the art. Therefore, the two independent and parent **Claims 1 and 8** are allowed for the reason listed above. Since the prior art of record fails to teach the present invention, the remaining pending original **Claims 2-7 and 9-18** are passed to issue.

13. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

14. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Henry S. Hu whose telephone number is **(571) 272-1103**. The examiner can be reached on Monday through Friday from 9:00 AM –5:00 PM.

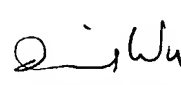
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306 for all regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Henry S. Hu

May 6, 2004



DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700